Drawing Amendments

Pursuant to revised 37 CFR 1.121, drawing changes must be made by presenting replacement figures which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the Drawing Amendments section or in the Remarks section of the Amendment.

Applicants present replacement pages for Figures 2A and 2C. Each replacement drawing sheet is identified in the top margin as "Replacement Sheet" and includes all the figures appearing on the immediate prior version of the sheet. Applicants' explanation of changes is as follows. Pursuant to 37 CFR 1.121(f), no new matter has been added.

Changes to FIG. 2A:

In the present invention, conduit 25 conveys BFW from a source (not shown) in direction F_{bfw} to BFW manifold 120 in reactor 50. In the original FIG. 2A, the letter "w" of direction F_{bfw} was inadvertently cut off due to printer error and has now been corrected. The number "0" associated with one of the cooling tube bundles 110 was also cut off due to printer error and has now been corrected.

Applicants have correctly numbered BFW manifold 120 on FIG. 2A (shown running horizontally on the page) to be consistent with that shown on FIG. 2C. In addition, Applicants have included a flange on BFW manifold 120 to be consistent with that shown in FIG. 2C. Applicants have now numbered the shaft which is shown running vertically on the page (previously numbered "120") as "124". Boiler feed water runner 124 is a component of boiler feed water manifold 120.

Changes to FIG. 2C:

In the original FIG. 2C, Applicants inadvertently mis-numbered conduit 30 as "340". Applicants have correctly numbered conduit 30 on FIG. 2C to be consistent with that shown on FIG. 2A. Steam manifold 340 underlies boiler feed water manifold 120, and has now been correctly numbered. Applicants have depicted boiler feed water runner 124 and steam runner 34 on FIG. 2C to be consistent with that shown on FIG. 2A.

Specification Amendments

Pursuant to revised 37 CFR 1.121, amendments must be made by presenting a replacement paragraph or section marked up to show changes made relative to the immediate prior version. Two versions (a clean version and a marked up version) of each replacement paragraph or section are no longer required. No new matter has been added.

On page 3, second and third paragraphs, the following replacement sections are presented:

The process of removing a cooling tube bundle from a reactor begins by removing boiler feedwater and steam ~~manifolds~~runners. The tube bundle can then be moved horizontally along a bundle support rail or beam until the tube bundle is situated directly beneath one of the reactor's bundle removal nozzles. In the present invention, a reactor has several bundle removal nozzles. Each bundle removal nozzle penetrates the reactor head. A particular bundle removal nozzle is chosen for its alignment with the cooling tube bundle requiring removal, referred to hereinafter as the designated or target cooling tube bundle.

Because each cooling tube bundle is attached to a boiler feed water ~~manifold~~ runner and a steam ~~manifold~~runner, both ~~manifolds~~ runners must be disengaged from the target cooling tube bundle. The ~~manifolds~~ runners are then removed to provide access to the target cooling tube bundle. The ~~manifold~~ runner piping does not need to be removed from the reactor. The piping needs only be lifted out of the way and set to one side. In other words, the ~~manifold~~ runner piping is moved out of the way so it does not impede the removal of the target cooling tube bundle from the reactor by means of the appropriate bundle removal nozzle.

On page 9, first paragraph, the following replacement section is presented:

FIG. 2A shows how cooling tube bundle **110** is configured in reactor **50,** thereby facilitating removal of cooling tube bundle **110** during tube or reactor maintenance. Conduit **25** conveys BFW from a source (not shown) in direction F_{bfw} to BFW manifold **120** in reactor **50.** A portion of BFW that passes through each cooling tube arrangement **110** is converted to steam.

Conduit **30** then transfers the BFW/steam mixture received in manifold **340,** from reactor **50** in direction F_s. Manifold **340**, which underlies manifold **120** as shown on **FIG. 2C**, is hereinafter referred to as a steam manifold.

Please amend the last paragraph on page 9, and which ends on page 10, to read:

Reactor **50** has an inside diameter of 21.5 ft. Thus, the disclosed embodiment of the present invention has nine rows of cooling tube bundles. Alternate embodiments of cooling tube arrangements may be employed as the cooling tube diameter or reactor size is varied. In addition, alternate groupings of cooling tubes may be used to accommodate BFW and steam manifold requirements, as well as tube and reactor sizes. Thus, in the disclosed embodiment, twelve-tube cooling tube bundle **110A** has a diameter of 2.75 ft. and four-tube cooling tube bundle **110B** has a diameter of 1.325 ft. Further, the number of rows of cooling tube bundles may be varied. As stated above, a tube bundle might have more or less than twelve tubes depending on the reactor inside diameter, cooling tube outside diameter, and the number of cooling tubes required. **FIG. 2C** shows how cooling tube bundle **110** is attached to boiler feed water manifold **120** and steam manifold **340**. BFW conduit **140** receives BFW from ~~conduit 25~~boiler feed water manifold **120** (see **FIG. 2A**) via a boiler feed water runner **124** and conveys BFW to inlet **160** of a cooling tube bundle **110** where steam generation occurs. Steam conduit **320** conveys saturated steam and excess BFW from outlet **300** to steam runner **34** and steam manifold **340**. Steam entering conduit **30** (see **FIG. 2A**) exits reactor **50.** In the disclosed embodiment, steam manifold **340** has a 14" diameter. BFW manifold **120** has a 12" diameter. Each is constructed of carbon steel. However, other pipe sizes and materials of construction may also be employed.

On page 11, second paragraph, the following replacement section is presented:

Each cooling tube bundle **110** is attached to a boiler feed water manifold **120** by means of a boiler feed water runner **124** and a steam manifold **340** by means of a steam runner **34**. Therefore, both ~~manifolds~~ runners must first be removed from the designated cooling tube bundle to enable access to the target cooling tube bundle. Boiler feed water ~~manifold 120~~runner

124 and steam ~~manifold 340~~runner 34 ~~is~~ are lifted out of the way so neither will impede the removal of target cooling tube bundle **110** from reactor **50** by means of the appropriate bundle removal nozzle **400**. To move the target cooling tube bundle, it may be necessary to first remove non-targeted cooling tube bundles that obstruct the path of the targeted cooling tube bundle which requires repair.